

IN THE CLAIMS:

Please amend the claims as shown below. The claims, as pending in the subject application, read as follows:

1. to 125. (Canceled)

126. (Currently Amended) A hierarchical data display method of displaying hierarchically-managed data items, comprising ~~the steps of:~~

using a processor to perform the steps of:

setting in a background indicating a parent hierarchical level, a first area in which parent data items belonging to the parent hierarchical level are displayed and a second area in which child data items belonging to a child hierarchical level and different from the parent data items are displayed, so that the first and second areas are displayed exclusively and without overlapping each other in a display area of every hierarchical level;

controlling a display of parent and child data icons respectively representing the parent and child data items while separating the parent and child data icons into each of the first and second areas,

zooming in to a desired level, wherein when a zoom in to the desired level is instructed, the display of icons is controlled so that only data items belonging to the desired level and levels subordinate to the desired level are displayed; and

zooming out to a desired level, wherein when a zoom out to the desired level is instructed, the display of icons is controlled so that data items belonging to parent level of the desired level are displayed.

127. (Previously presented) The method according to Claim 126, wherein sizes of said first and second areas are determined on the basis of the number of data items belonging to the parent level and the number of data items belonging to the child level.

128. (Previously presented) The method according to Claim 126, wherein when there are a plurality of the child levels, a display area for each child level is determined according to the number of data items belonging to levels subordinate to said child level.

129. (Previously presented) The method according to Claim 126, wherein the background is selected and displayed so that a hierarchical depth can be distinguished.

130. (Previously presented) The method according to Claim 129, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

131. (Canceled)

132. (Previously Presented) The method according to Claim 126, further comprising a step of zooming up a desired level, wherein when a zoom up is instructed in the desired level, the detailed contents of the desired level are displayed.

133. (Canceled)

134. (Previously presented) The method according to Claim 126, wherein said setting step includes the steps of:

judging whether a remaining area is left in which the first and second areas have not been set; and

setting the first and second areas are set in the remaining area when the remaining area is left.

135. (Previously presented) The method according to Claim 126, wherein a size of each data icon is determined corresponding to the number of the data items.

136. (Previously Presented) A hierarchical data display apparatus for displaying hierarchically-managed data items, comprising:

setting means for setting in a background indicating a parent hierarchical level, a first area in which parent data items belonging to the parent hierarchical level are displayed, and a second area in which child data items belonging to a child hierarchical level and different from the parent data items are displayed, so that the first and second areas are displayed exclusively and without overlapping each other in a display area of every hierarchical level;

control means for controlling a display of parent and child data icons respectively representing the parent and child data items while separating the parent and child data icons into each of the first and second areas;

zooming-in means for zooming in to a desired level, wherein when a zoom in to the desired level is instructed, said control means controls the display of icons so that

only data items belonging to the desired level and levels subordinate to the desired level are displayed; and

zooming-out means for zooming out to a desired level, wherein when a zoom out to the desired level is instructed, said control means controls the display of icons so that data items belonging to parent level of said desired level are displayed.

137. (Previously presented) The apparatus according to Claim 136, wherein said setting means determines sizes of said first and second areas on the basis of the number of data items belonging to the parent level and the number of data items belonging to the child level.

138. (Previously presented) The apparatus according to Claim 136, wherein said setting means, when there are a plurality of child levels, determines a display area for each child level according to the number of data items belonging to levels subordinate to said child level.

139. (Previously presented) The apparatus according to Claim 136, wherein said control means selects and displays the background so that a hierarchical depth can be distinguished.

140. (Previously presented) The apparatus according to Claim 139, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

141. (Canceled)

142. (Previously Presented) The apparatus according to Claim 136, further comprising zooming-up means for zooming up a desired level, wherein said control means, when a zoom up is instructed in the desired level, controls to display the detailed contents of the desired level.

143. (Canceled)

144. (Previously presented) The apparatus according to Claim 136, wherein said setting means includes:

judging means for judging whether a remaining area is left in which the first and second areas have not been set; and

means for setting the first and second area in the remaining area when the remaining area is left.

145. (Previously presented) The apparatus according to Claim 136, wherein said control means determines a size of each data icon corresponding to the number of the data items.

146. (Canceled)

147. (Previously Presented) A computer-readable storage medium storing a computer-executable program of displaying hierarchically-managed data items, said program comprising the steps of:

setting in a background indicating a parent hierarchical level, a first area in which parent data items belonging to the parent hierarchical level are displayed, and a second area in which child data items belonging to a child hierarchical level and different from the parent data items are displayed, so that the first and second areas are displayed exclusively and without overlapping each other in a display area of every hierarchical level;

controlling a display of parent and child data icons respectively representing the parent and child data items while separating the parent and child data icons into each of the first and second areas;

zooming in to a desired level, wherein when a zoom in to the desired level is instructed, the display of icons is controlled so that only data items belonging to the desired level and levels subordinate to the desired level are displayed; and

zooming out to a desired level, wherein when a zoom out to the desired level is instructed, the display of icons is controlled so that data items belonging to parent level of said desired level are displayed.

148. (Previously Presented) An image management apparatus for managing image data items respectively belonging to hierarchically-constructed directories, said apparatus comprising:

first dividing means for dividing a display area into parent areas respectively associated with parent directories in a hierarchically same level;

second dividing means for dividing each of the parent areas into child areas respectively associated with child directories in a hierarchically highest level of child directories, when the parent directory has any child directories; and

display control means for controlling to display reduced images of image data items belonging to the parent directory as child data items of the parent directory and reduced images of image data items belonging to the child directory as child data items of the child directory in the parent or child areas of a display screen respectively associated with the parent or child directories in which the image data items belong.

149. (Previously Presented) The apparatus according to claim 148, wherein said display control means controls to display the reduced images in the parent or child areas of the display screen in a size determined based on a number of image data items belonging to the parent directory as child data items of the parent directory or to the child directory as child data items of the child directory.

150. (Previously Presented) The apparatus according to claim 148, further comprising selection means for selecting any one of the child areas, wherein said display control means controls to enlarge and display reduced images of image data items belonging to a child directory corresponding to the selected child area and image data items belonging to a directory in a hierarchical level lower than a hierarchical level of the child directory, but not to display reduced images of image data items belonging to a directory in a hierarchical level higher than a hierarchical level of the child directory.

151. (Previously Presented) The apparatus according to claim 150, wherein said display control means controls to display, in response to a predetermined operation, a display area of a directory in a hierarchical level higher than a hierarchical level of the child directory as a child of the directory corresponding to the selected child area.

152. (Previously Presented) The apparatus according to claim 148, wherein said first and second dividing means divides into the parent areas or the child areas in accordance with areas assigned in proportion to a number of image data items belonging to the parent directory or to the child directory.

153. (Previously Presented) The apparatus according to claim 148, said display control means controls to display a background of a parent area in a different color from the background of a child areas.

154. (Currently Amended) A method of managing image data items respectively belonging to hierarchically-constructed directories, said method comprising the steps of:

using a processor to perform the steps of:

dividing a display area into parent areas respectively associated with parent directories in a hierarchically same level;

dividing each of the parent areas into child areas respectively associated with child directories in a hierarchically highest level of child directories, when the parent directory has any child directories; and



controlling to display reduced images of image data items belonging to the parent directory as child data items of the parent directory and reduced images of image data items belonging to the child directory as child data items of the child directory in the parent or child areas of a display screen respectively associated with the parent or child directories in which the image data items belong.

155. (Previously Presented) A computer-readable storage medium which stores a program causing a computer to execute a method of managing image data items respectively belonging to hierarchically-constructed directories, said program comprising the steps of:

dividing a display area into parent areas respectively associated with parent directories in a hierarchically same level;

dividing each of the parent areas into child areas respectively associated with child directories in a hierarchically highest level of child directories, when the parent directory has any child directories; and

controlling to display reduced images of image data items belonging to the parent directory as child data items of the parent directory and reduced images of image data items belonging to the child directory as child data items of the child directory in the parent or child areas of a display screen respectively associated with the parent or child directories in which the image data items belong.